

STUDIES IN AUSTRALIAN ENTOMOLOGY.

No. X.

DESCRIPTION OF A NEW TIGER BEETLE FROM WESTERN AUSTRALIA.

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TETRACHA GREYANUS, n.sp.

Stout, cylindrical, parallel-oval, apterous. Prothorax with a lateral carina on anterior part of sides; elytra subtruncate, strongly and roughly punctate towards base, smooth (with very minute punctures in derm) towards apex, the smooth apical part with a discoidal row (4 or 5) of fine punctures, a submarginal row (3) on sides and a marginal row along apex.

Upper surface metallic; elytra green on punctate part, becoming bluish on smooth apical part; prothorax green, with middle of disc, middle of anterior margin, and a small spot at middle of basal margin bluish-black; head green, middle of front and occiput bluish-black; underparts of prothorax green, bluish in middle; sides of body and anterior ventral segments greenish, middle parts piceous, two penultimate ventral segments piceous-black with narrow brown posterior margin, penultimate segment subtestaceous at sides, apical segment piceous with wide testaceous margin; legs, palpi and antennæ pale testaceous, five apical joints of antennæ slightly infuscate; labrum testaceous with anterior margin infuscate; mandibles testaceous at base, teeth and apex piceous.

Prothorax a little wider than head with eyes, broader than long (4.5 × 5.2 mm.), subcordate (apex 5, base 4.1 mm.); disc very convex, decidedly raised above apical area, and very strongly above basal area; anterior transverse impression very deep on sides, curving forward on each side towards anterior angles;

posterior transverse impression very strongly impressed; a narrow lightly reflexed carina on sides extending back from anterior angles almost to middle. Elytra oval (9×5.8 mm.), parallel on sides, arcuate-truncate at apex with external angles widely but shortly rounded, strongly punctate on basal half, roughly granulate amongst the punctures near the base, the puncturation finer and the derm not granulate posteriorly; apical declivity smooth (minute punctures and transverse rugæ noticeable under a lens). Ventral segments rugulose; rugæ of three basal segments longitudinal on sides; last segment narrowly bordered, median apical notch of ♂ very small. Length 15-18, breadth 5.3-6.8 mm.

Hab. — Carnarvon District (Shark's Bay), W.A.; several specimens sent to me by Mr. C. French.

This species by its cylindrical and parallel form, connate elytra, absence of wings and the small median notch of the apical ventral segment in the ♂ is allied to *T. (Megacephala) cylindrica*, Macl., but differs from that species, and also from *T. (Megacephala) frenchi*, Sl., and *T. (Megacephala) spenceri*, Sl., by its shorter elytra more truncate at apex, and the well developed lateral carina on the anterior part of the prothorax. The features given above as characteristic of *T. cylindrica* and its allies seem to be those which chiefly serve to differentiate that group of species from the other unicolorous Australian species, of which *T. pulchra*, Brown, is the type, which are species of quite different facies, the elytra being shorter, more depressed, much more ampliate at the base as compared with the prothorax, and less parallel on the sides. *T. (Megacephala) howitti*, Casteln., is a species I have not before me; in many ways it seems intermediate between *T. cylindrica* and its allies, and *T. pulchra* and its allies. The Rev. Thos. Blackburn, who knows *T. howitti*, believes it to be an apterous form. See pp. 634-635 for some interesting notes from his pen on this species.

Note. — M. Fleutieux has formed the genus *Pseudotetracha*, for species of which *T. cylindrica* is the type, but the genus is so characterised that I doubt whether any species except *T. cylindrica*

and *T. frenchi* would find a place in it, and in any case if these species are to be removed from *Tetracha* it seems to me impossible to consider *T. pulchra* as more closely allied to species such as *T. australasice*, Hope, than to *T. cylindrica*, as is implied by leaving the two former together in a different genus from the last. For these reasons I have not adopted the genus *Pseudotetracha*.

TETRACHA FRENCHI, Sloane.

Megacephala frenchi, Sl., P.L.S.N.S.W. (2), viii. 1893, p. 25.

M. Fleutieux has published the opinion that *T. frenchi*, Sl. = *T. (Megacephala) howitti*, Casteln.,* but I am sure he is mistaken in this. There was formerly in the Howitt Collection at the Melbourne University a specimen labelled *Megacephala howitti*, Casteln., which was evidently one of the two original specimens brought from Cooper's Creek by Mr. A. W. Howitt (the other having been given to M. de Castelnau by Dr. Howitt).† This specimen now appears to be lost, for Mr. C. French, who recently looked for it at my request, could not find it; but I saw it in November, 1893‡, and published a note dated 24th January, 1894, recording the great difference in facies between *T. (Megacephala) howitti*, Casteln., (as represented in the Howitt Collection), and *T. frenchi*. This note appeared previously to M. Fleutieux's, and was written only to help to re-establish the validity of de Castelnau's species, on which a doubt had been cast by me in my note on *T. frenchi*.

In September, 1893, Mr. Zietz brought a *Tetracha* to Adelaide from Cooper's Creek; one specimen of this species was sent to me in 1894 by the Rev. Thos. Blackburn, and I recognised it as *T. howitti*, both from de Castelnau's description and my then recent recollection of the species in the Howitt Collection. Mr. Blackburn has written to me in reference to the specimen in the Howitt Collection:—"The specimens of the Callabonna Expedi-

* Bull. Soc. Ent. Fr. 1895, p. 205; the opinion reiterated in 1896.

† Vide Castelnau's note, Trans. Soc. Victoria, viii. p. 31.

‡ P.L.S.N.S.W. (2), viii. 1893, p. 483.

tion were taken at Cooper's Creek, and I am perfectly satisfied from memory that the specimen in the Howitt Collection named as *T. howitti* was nothing like *T. frenchi*. I had not a specimen of the *Tetracha* taken by the Callabonna Expedition with me to compare with it [*i.e.*, *T. howitti*], but it struck me as being certainly the same thing." In conclusion, I would draw attention to the evident and important differences between *T. frenchi* and the description of *T. howitti* which, in themselves, seem to effectually dispose of any possibility of their being synonymous:—(a) The great difference in facies as shown by de Castlenau's measurements of *T. howitti* (7 × 3 lines), *T. frenchi* (about 9 × 3 lines); the elytra in *T. howitti* "short of an oval form," in *T. frenchi* long, parallel and cylindrical. (b) The differences in colour—"the buccal parts, the base of antennæ, legs and last two segments of the abdomen of a light yellowish-brown" in *T. howitti*; while in *T. frenchi* the two apical segments of the abdomen are black (as is the whole of the abdomen excepting the lateral parts of the three basal segments, which are metallic-green or purple), the legs being entirely black, the antennæ piceous-brown.

As I have not a specimen of *T. howitti*, and am unable to see one, I asked the Rev. Thos. Blackburn to send me a note on it, and the following is the substance of his communication, founded on the *Tetracha* brought from Cooper's Creek by Mr. Zietz:—"This insect agrees extremely well with Castelnau's description of *T. howitti* (*e.g.*, elytra short of an oval form, . . . basal five joints of antennæ light yellowish-brown . . . legs yellowish-brown . . . last two segments of abdomen brown, becoming yellow on the last). Your *T. frenchi* is utterly different. The species I have as *T. howitti* is about as unlike *T. frenchi* as one *Tetracha* can be unlike another." He also has added a comparison with *T. murchisoni*, Fleut., as follows:—"It is a shorter and considerably more convex form—the convexity of the elytra much greater from scutellum to apex (looked at from the side) and also from one lateral margin to the other (looked

at from behind). The pronotum of *T. howitti* does not differ much in outline, but its sides are evidently more sinuate behind the middle. The lateral carina of the pronotum is non-existent. The elytra are distinctly more nitid, and their basal puncturation is less close and limited to the basal one-third of the area. The antennæ are much darker (after about the fourth joint), and the legs of a distinctly less clear testaceous colour. In the ♂ the apical ventral segment is scarcely sinuate at its apex."